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THE PHYSIC GARDEN AT CHELSEA *

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THIS garden, which has been cultivated for 265 years, formerly supplied the Society of Apothecaries with the herbs used in their laboratory at Blackfriars. The term "physic garden," however, need not be connected with the growing of drugs. In Jacobean times, when it had its origin, it was more generally used in the sense of appertaining to physical (i.e., natural) science—a botanical garden. The main reason for such gardens was to advance botany and to teach students the names and natures of plants.

Nevertheless, since it was widely believed that Divine Providence had decreed that every plant should have a medicinal property which merely awaited discovery, pharmacology and botany were to some extent synonymous. Hence it was natural that the "medicine men" were among the chief teachers of the science, and the Royal College of Physicians cherished a physic garden from their foundation in 1518 until its loss in the Great Fire of London, Gerard the Herbalist being its first curator.

THE APOTHECARIES' GARDEN

In the reign of James I the preparation and marketing of drugs and herbs was still the business of the Grocers Company. But it appeared to His Majesty who was no mean scientist that "many empiricks and ignorant men do make compound, unwholesome, hurtful, deceitful, corrupt and dangerous medicines to the great peril and hazard of our subjects," and a charter was granted for the establishment of the Worshipful Society of Apothecaries in 1618. The qualifications for membership were strict, and the Royal College of Physicians were requested to provide examiners, and appoint officials to help arrange botanical excursions for students and apprentices. As many plants of interest to apothecaries were not to be met with in these "herbarising" expeditions round London, the society eventually set out to find a garden where such specimens could be cultivated and where foreign seeds could be grown. In 1673 it leased this 3 $\frac{1}{2}$ acres of waterfront at Chelsea for £5 per annum from the second Lord Cheyne. This was stocked by the generosity of private members and exchanges were arranged through the distinguished foreign botanists whom its fame soon

* From an address delivered in the garden on June 3 at a joint meeting of fellows of the Royal College of Physicians and members of the Society of Apothecaries—believed to be the first meeting of its kind for 168 years.

brought to England. The first cedars of Lebanon to grow in this country were planted in 1683 in the garden (the last of them only died in 1903), whilst a cinchona tree growing in a house ingeniously heated is mentioned in Evelyn's diary for 1685.

The financial outlay involved gradually proved too much for the Apothecaries, and it was proposed early in the eighteenth century to abandon the garden. Their troubles, however, came to the ear of Sir Hans Sloane, who had purchased the manor of Chelsea from Lord Cadogan in 1712 and was president of both the College of Physicians and the Royal Society. He now generously conveyed the freehold of the garden to the Apothecaries for £5 per annum, to maintain for the manifestation of the power, wisdom and glory of God in the works of creation, and to show how useful plants can be distinguished from those that are hurtful. The condition was attached that if at any time it ceased to be kept up as a scientific garden, it must be offered to the Royal Society or the Royal College of Physicians under the same conditions.

Sir Hans brought Phillip Miller (later F.R.S.), the active and learned author of *The Gardener's Dictionary*, in as head gardener, and the Royal College of Physicians contributed £100 towards the new hot-houses to signify that the ancient breach between physician and apothecary was healed. Under this new régime the garden flourished exceedingly.

In 1732 Miller sent out as a gift to the newly founded colony of Georgia, at Sloane's suggestion, a packet of cotton seed, and from that packet has descended the greater part of the cotton supply of the modern world! Mignonette was introduced into England via the Chelsea garden twenty years later. In 1737 a marble statue of Sir Hans by Rysbrack was erected in the garden, where he still stands arrayed in the presidential robes of the college.

Soon after this, Linnæus, the father of systematic botany, was induced by the fame of the Chelsea garden to visit England from Sweden, and later he sent his distinguished pupils Kalm and Fabricius on several occasions. The garden was subsequently laid out on the Linnæan system in his honour.

In 1772, Sir Joseph Banks, P.R.S., a generous benefactor of the garden, returned from his exploration of Iceland and presented a rockery for alpine plants of which the actual rocks were blocks of lava brought by him from Mount Hecla, and supplemented by 40 tons of stones from the older Tower of London which had recently been demolished. This can still be seen surrounding the basin in the middle of the garden. On his return from his voyage with Captain Cook he also presented a large bag of seeds from Botany Bay.

About this time the Princess Dowager was forming her garden at Kew, and many rare trees and plants from

Chelsea were presented through Sir Joseph Hooker. Miller was succeeded as head gardener by William Forsyth, after whom the shrub forsythia is named, and later by Curtis, the founder of the *Botanical Magazine*. In 1815 Thomas Wheeler was appointed curator and he personally conducted summer botanising excursions followed by a dinner at the Apothecaries' Hall. These were attended by many fellows of the College of Physicians as well as botanists. Ten years later other educational facilities were added, the garden being thrown open to all students of medicine, a professorship of botany being established, and an annual gold and silver medal being awarded to students. Among the recipients of these are the names of T. H. Huxley, William Jenner, Charlton Bastian, and Hilton Fagge. In 1835 John Lindley became professor. He was the author of the great work *Introduction to the Natural System of Botany* which led to the decline of the "artificial" system of Linnæus, and the garden was again laid out on his system.

In 1848 the then curator, Robert Fortune, was sent to the East India Company at their request, to attempt the importation into India of the tea plant; a venture which, as we know, was ultimately highly successful. This was accomplished by the use of the "Wardian" case, which was invented by Nathaniel Ward, F.R.S., a master of the Apothecaries' Society and originally a practitioner in the East End of London. By this means the cinchona tree was also brought from the New to the Old World, and so quinine was given to India, and bananas were brought to Fiji from China. One of his original cases still houses rare ferns in the Physic Garden.

1874 was a critical year, for the Chelsea Embankment was opened. This proved fatal to many of the rare trees and plants owing to the cessation of the tidal influx to their roots. Of the many interesting trees which survived, however, the maidenhair tree, which Sir A. Seward terms a "living fossil," may be mentioned, as also the two ancient mulberry trees which may owe their origin to James I's peremptory orders in 1610 to plant these trees all over England for their silk culture. A cork tree—essential appendage to the apothecary's bottle of medicine—also stands near the Stove house, as does a tamarisk tree, familiar to all who have served in desert countries.

OUR OWN TIMES

Towards the end of the last century the work of the garden was carried on with diminishing zeal. London had become too large for botanising expeditions, finances had dwindled, and botany was no longer so important a part of medical training. The Apothecaries finally threw in their hand, offering the garden both to the Royal Society and to the Royal College of Physicians,

both of whom declined to accept responsibility. In 1893, however, the Charity Commissioners generously accepted responsibility to prevent it being built over, and it has since 1899 been financed for the benefit of scientific botany principally by the London Parochial Charities through a committee consisting of their representatives, together with those of the other interested bodies including the Royal College of Physicians and the Society of Apothecaries. Lord Cadogan also sits on this committee as the lineal descendant of Sir Hans Sloane.

The garden, which was laid out on the present Bentham-Hooker system in 1902, now employs a curator and eight gardeners, and over 3000 students and others are admitted annually. Botanical specimens are provided for many examining bodies, and seeds are exchanged with similar institutions all over the world. Much research work on plant physiology is carried out in the laboratories which adjoin the curator's house, while Chadwick and other lectures are given annually in the garden or lecture-room.

It is pleasing to find this quiet backwater of science continuing to serve the useful purpose for which it was founded more than three centuries ago, and it is to be hoped that it can be assured of the continued interest and support upon which its further survival depends.